

8-Port 10/100 Switch with (1) PoE PD Port

Perfect for small- to medium-sized workgroups, this switch provides eight 10/100-Mbps ports.

Port 8 is a Power over Ethernet (PoE) powered device port.



Customer Support Information

Order toll-free in the U.S.: Call 877-877-BBOX (outside U.S. call 724-746-5500)
FREE technical support 24 hours a day, 7 days a week: Call 724-746-5500 or fax 724-746-0746 • Mailing address: Black Box Corporation, 1000 Park Drive, Lawrence, PA 15055-1018 • Web site: www.blackbox.com • E-mail: info@blackbox.com

FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

EUROPEAN COMMUNITY (CE) ELECTROMAGNETIC COMPATIBILITY DIRECTIVE

This equipment has been tested and found to comply with the protection requirements of European Emission Standard EN55022/EN61000-3 and the Generic European Immunity Standard EN55024.

EMC:
EN55022 (2003)/CISPR0-2 (2002): Class A
IEC61000-4-2 (2001): 4 KV CD, 8 K AD
IEC61000-4-3 (2002): 3 V/m
IEC61000-4-4 (2001): 1 kV (power line), 0.5 kV (signal line)

Normas Oficiales Mexicanas (NOM)
Electrical Safety Statement
INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.

12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.

13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.

14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.

15. En caso de existir, una antena externa deberá ser localizada lejos de las lineas de energia.

16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.

17. Cuidado debe ser tomado de tal manera que objectos liquidos no sean derramados sobre la cubierta u orificios de ventilación.

18. Servicio por personal calificado deberá ser provisto cuando:

    A: El cable de poder o el contacto ha sido dañado; u

    B: Objectos han caído o líquido ha sido derramado dentro del aparato; o

    C: El aparato ha sido expuesto a la lluvia; o

    D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o

    E: El aparato ha sido tirado o su cubierta ha sido dañada.

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1. Specifications

Buffer Memory: Embedded 1-Mbps frame buffer

Certifications: FCC Class A, CE

Flow Control: IEEE 802.3x compliant for full duplex; backpressure flow control for half duplex

Full Forwarding/Filtering Rate (pps): 148,800 pps at 100 Mbps, 14,880 pps at 10 Mbps

MAC Address: 2 K

Standards: IEEE 802.3af, IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3x flow control

Transmission Media: 10BASE-T CAT3, 4, 5 UTP/STP; 100BASE-TX CAT5 UTP/STP

Transmission Mode: 10-/100-Mbps support, full- or half-duplex

Transmission Speed: 10-/100 Mbps for twisted pair

Switching Method: Store and forward

Connectors: (8) RJ-45 10/100BASE-TX with (1) PD/PoE port, (1) barrel connector for power

LED Indicators: Per port: LINK/ACT;
Per unit: Power

Temperature Tolerance: Operating: +32 to +131° F (0 to +55° C);
Storage: -4 to +194° F (-20 to +90° C)

Relative Humidity: 10 to 90% (noncondensing)

Power: Input: 5 VDC, 2 A;
Power consumption: 6 watts (maximum)

Size: 0.9"H x 3"W x 5.4"D (2.4 x 7.7 x 13.6 cm)

Weight: 0.77 lb. (0.35 kg)

2. Overview

2.1 Introduction

This high-performance switch provides eight 10-/100-Mbps ports. Port 8 is a power device (PD) port that receives power from other power source equipment (PSE) ports via CAT5 cables.

The switch is easy to install in an environment where network traffic and the number of users increases continually, and you need to keep adding workgroups. The compact device was designed specifically for small to medium workgroups. Install it where space is limited.

2.2 What's Included

Your package should include the following items. If anything is missing or damaged, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

- (1) 8-Port 10/100 Switch with (1) PoE PD Port
- (1) power adapter
- This user's manual

2.3 Hardware Description

2.3.1 Front Panel

Figure 2-1 shows the unit's front panel. Table 2-1 describes its components.

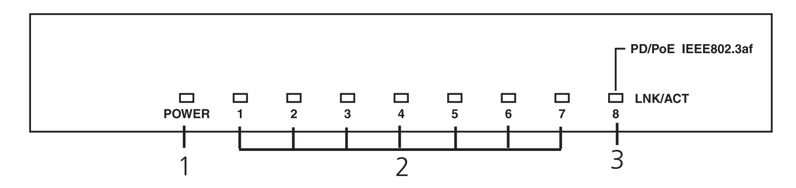


Figure 2-1. Front panel.

Table 2-1. Front-panel components.

Number	Component	Description
1	Power LED	Lights when power to the unit is on
2, 3	(8) LINK/ACT LEDs	Each LED lights when there is activity on the corresponding connected port. LED 8 is also for the PD/PoE port connection.

2.3.2 Back Panel

Figure 2-2 shows the unit's back panel. Table 2-2 describes its components.

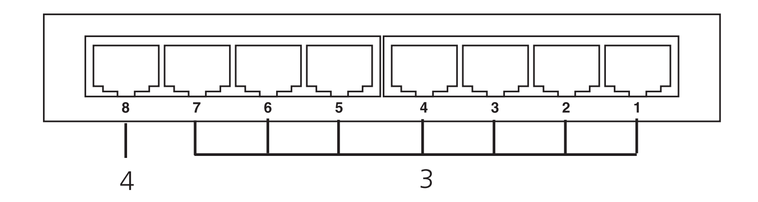


Figure 2-2. Back panel.

Table 2-2. Back panel components.

Number	Component	Description
3	(7) RJ-45 ports	Link to RJ-45 devices
4	(1) RJ-45 port	PoE PD port

2.4 LED Indicators Descriptions

Table 2-3. LED indicators.

LED	Status	Description
Power	On	Power is on
	Off	Power is off
LINK/ACT	On	Port is connected
	Off	Port is not connected
	Flashing	Data is being transmitted or received

3. Installation

Twisted-pair port and cable installation:

1. The twisted-pair port on the switch supports Auto MDI/MDI-X crossover, so you can use either straight-through or cross-pinned cable. Just plug-and-play.
2. Connect one end of a CAT5 or above twisted-pair cable to an RJ-45 port on the switch. Connect the other end of the cable to a workstation or server.
3. Repeat Steps 1 and 2 above for each device that you want to connect to the switch.

For successful installation and optimum performance, make sure you use CAT5 or higher-grade cable. If you use lesser-grade cables, the network will perform poorly. For a 100-Mbps Fast Ethernet connection, use CAT5 or CAT5e cable that's up to 328 feet (100 meters) long.

Power on:

Power the switch via a PoE PSE (Power Source Equipment) device or from an external DC power adapter. Make sure your PoE PSE device complies with 802.3af and uses 48 VDC.

When you power on the device, all LED indicators will light immediately, then go off. However, the power LED remains on.

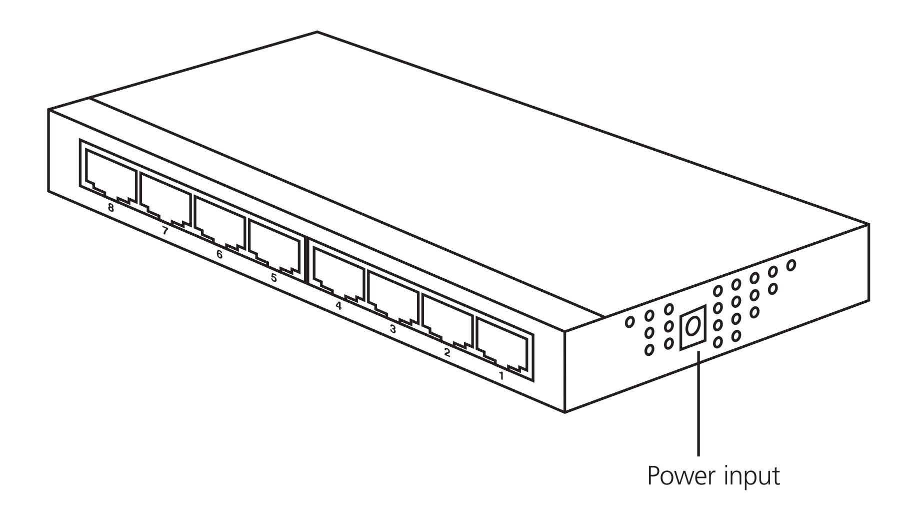
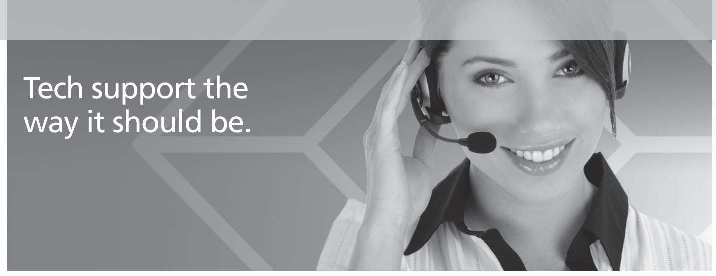


Figure 3-1. Power input on the switch.

NOTE: When powering the device from PoE PSE, make sure it supplies at least 48 VDC, 125 mA.

Black Box Tech Support: FREE! Live. 24/7.



Great tech support is just 20 seconds away at
724-746-5500 or blackbox.com.



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